The Planters' Chronicle.

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THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Planting Expert being still away on tour, we are deprived of those valuable and interesting papers which weekly add so much to our paper. We hope that on his return he will be able to add to our stores of knowledge, and describe for us what must be a very practical tour.

We publish an article on the Digestive Juices of Plants which shows how similar are the digestive properties of both plants and animals.

We should like to have, *from anyone who has cultivated the Soy Bean*, the results of any experiments undertaken, as the Director of Agriculture, Ceylon, does not predict any great success from its cultivation in the Tropics by European planters.

A further statement on Explosives in Agriculture, which gives more details than we have hitherto printed, especially as regards the cost of the different charges at various distances which do not appear prohibitive. We know that the effects are lasting and beneficial. Those who are inclined to make the experiment should carefully read the para dealing with the preparation of the charges, the several "Don'ts" and the advantages of sub-soiling.

Mr. Cyril Baxendale always has something interesting to say of Rubber, and we publish a lecture given by him on Rubber Planting in the British Empire. The total acreage under rubber is upwards of 1,000,000 acres, and expansion, considering the short time since its cultivation was seriously undertaken, is almost incredible. A gentleman, just out from Home, tells us that it is hoped that Rubber will go to 3 shillings a pound. The introduction of the new Tariff in America may have a good influence.

The extract from the Consular Reports on the quantity of Tea exported, and the continued and increased popularity of Tea in the United Kingdom and Russia must be pleasant reading to Tea planters.

We trust that *Commerce* is right in assuring us that the prospective Brazil crop is a short one, and that visible stocks are diminishing, which should bring hope and consolation to coffee planters, who have so many evils to contend against.

THE DIGESTIVE JUICES OF PLANTS.

It has long been known that both plants and animals carry on their various chemical operations by means of specific agents known as enzymes. Thus, when a plant requires the starch which is stored in its leaf, tuber or elsewhere, a special enzyme diastase, is put in contact with the starch grains, corrodes them, and converts the starch into sugar. The mode whereby the animal makes use of the starch which occurs in its food is precisely similar to that employed by the plant. Both saliva and pancreatic juice contain diastase, and hence such starch as escapes the action of saliva—and in these days of quick lunches much escapes and is acted on by the diastase of pancreatic juice and is hydrolysed to sugar. Each of the many chemical actions which go on in the body is presided over by a specific enzyme, of which the starch-converting diastase may serve as an example. The digestion of proteins—the complex nitrogen-containing substances which are of special nutritive value—is effected by stages, and for each stage there is a special enzyme. In the animal these proteolytic enzymes are contained in the gastric and pancreatic juices. Since the processes of digestion are similar in plants and animals, we shall expect to find that proteolytic enzymes occur in plants as well as in animals. This expectation was realised long ago by the classical investigations on the substances excreted by insectivorous plants, such as Drosera and the Pitcher plant (Nepenthes). These substances bring about the solution of proteins in a way similar in all essentials to that whereby the proteolytic enzymes of animals act.

The fact that the protein-digesting enzymes of plants are readily demonstrable in the case of insectivorous plants, is apt to give rise to the idea that their occurrence is exceptional and bound up, in some special way, with the curious and uncanny habit of Nepenthes and Drosera. This, however, is not the case. What happens in these happens in all plants, and the only peculiarity of the insectivorous plant is that it produces—in accordance with its special habit—a relatively large, and hence readily recognisable, amount of proteolytic enzyme.

In passing, it may be pointed out that the insectivorous habit of Drosera is the expression of a device for satisfying "nitrogen hunger." The insectivorous plant lives in situations in which the amount of available nitrogen is low. It runs the risk of nitrogen starvation and overcomes that risk by an exiguous diet of flies. Leguminous plants, as is well known, save themselves from similar starvation and satisfy their nitrogen-hunger by first permitting nitrogen-fixing bacteria to take up a lodgment in their roots, and then by digesting the lodgers and all their stores of nitrogen.

The formation of proteolytic enzymes by the insectivorous plant is therefore to be regarded only as a special case of a general phenomenon, and that this is so is evident from the fact that similar proteolytic enzymes occur in considerable quantities in many other kinds of plants. They have been extracted from the Papaw, the Pineapple, the Fig, the Paper Mulberry (Broussonetia papyrifera) and many other plants.

The only reason why similar enzymes cannot be obtained readily from every plant is because plants are economical beings so far as the use of nitrogen compounds is concerned. They make a little go a long way, and hence they only require minimum quantities of the agents which change and dissolve the proteins.

Nevertheless, recent experiments by Messrs. Gerber and Guiol (*Bull. Soc. Bot. de France* 59, 1912) have brought to light the somewhat surprising fact that the enzymes of certain plants are much more powerful than those of animal origin. Thus, a mixture of diastatic and proteolytic enzymes, which may be obtained easily from the latex of the Fig (Ficus Carica) is shown to act on protein twice as vigorously as pancreatin which is of animal origin.

Again, from the latex of the Paper Mulberry a similar mixture of enzymes is obtained; in this case, although the proteolytic enzyme is only equal in activity with one of animal origin, the diastatic enzyme is ten times more active than animal diastase.

Finally, it need only be added that the fundamental importance to the plant, of these and other enzymes lies in the fact that chemical processes, which, without their co-operation, proceed only slowly and at high temperatures, are made to take place rapidly at the comparatively low temperature in which the plant lives. By their means stores of food laid down in the root or in the wood or elsewhere are rapidly mobilised in and put at the service of the burgeoning tree, and by this act it is that the transformation scene of spring is as amazingly rapid as it is supremely beautiful. *The Gardeners' Chronicle.*

CULTIVATION OF THE SOY BEAN.

Not Suitable for Ceylon.

The cultivation of the soy bean has been tried in Ceylon for a sufficient length of time now, and the verdict is that it is not suitable for the island. The opinion of the Director of Agriculture expressed to our Kandy representative, is that it will never succeed in Ceylon; that is, that it will never produce the weight of crop per acre that it does in temperate climes. The soy bean, it will be remembered, took some time to adapt itself to the soil of Ceylon. Only a small percentage of the seeds originally put down by the Agricultural Society in the school gardens in different parts of the island germinated, the failure of the greater number being due to the lack of the required bacteria in the soil. By continued growing, however, and consequent inoculation of the soil, it became possible to cultivate the bean on a fairly extensive scale. The soy bean has now been three years under trial, and the opinion is that, so far as Ceylon is concerned, it is not worth cultivating. The opinion of the Director of Agriculture is that it

Will not Succeed in the Tropics

and that it will not yield as well as it does in Manchuria. He had had experience of soy bean cultivation in Zanzibar and Portuguese East Africa, where it did not prove successful, and the same might be said of Natal, where it is being tried somewhat extensively. Annuals, like the soy beans, will never pay the European to dabble with, says Mr. Lyne. He did not know of any oil-producing annual in the Tropics which would pay a European employer of labour to cultivate. The soy bean, he thinks, is one of those products that should be left to the native. It is altogether a peasant industry.—*The Weekly Times of Ceylon.*

EXPLOSIVES IN AGRICULTURE.

(Extract from a Paper by H. C. COGGINS, in the "Agricultural Gazette" of New South Wales.

It is remarkable that, of many trials made in Queensland for the removal of trees and stumps and for subsoiling by the use of explosives, none or very few appear to have been successful. The latest report we had from an experimenter was that he had placed 31 dynamite cartridges under a stump of no great dimensions and had exploded them without the slightest effect on the stump! Another informed us that he had charged a line of holes with a view to subsoiling the ground. In this case the holes had merely acted as gun barrels; the surrounding soil was neither shattered nor even crushed. In other States the experiments appear to be successful almost everywhere, as will be seen by the following instances recorded in "Garden and Field," an excellent and reliable journal published in Adelaide:—

A demonstration of the usefulness of explosives for removing trees and stumps, ditching, and subsoiling was given at Mount Barker recently. The test was reported in the "Advertiser" (S. A.) as follows:—The first stump chosen was a pine of about 30 years' growth. Evidently, the soil and climate are eminently suited for the growing of pines, for this stump, 2 ft. above the ground, was 10 ft. in circumference. A hole was bored in the ground towards the tap root with a 2-in. auger, and 30 plugs of gelignite were inserted and fired. This was repeated on the other side of the stump, and although the earth was removed from underneath, the tentacle-like roots still held the stump in place. These roots, which ran almost horizontally from the stump, were then operated on. With a 1-in. auger a hole was bored into each root, and one plug of gelignite was placed in each hole; then all were simultaneously fired. Upon examination every root was found to be completely severed, leaving the stump ready to be hauled. The next stump was about the same size, but the experience gained in the first saved money in the second. In this case the operations were reversed; the tentacles were cut by gelignite, then three holes under the stumps were charged and fired simultaneously. Spectacularly and financially, the effect was grand. One portion of the stump, weighing over 2 cwt., was blown at least 50 ft. into the air and fell 120 ft. from the place of explosion, the rest of the stump being removed many feet.

The unbelievers were completely won over by the signal success of this experiment. The whole cost for gelignite, fuse, detonators, and time was as near as possible 7*s*. The general opinion among the onlookers was that the stumps would have taken one man one and a-half day to grub. A blackwood tree, 25 ft. high and 50 in. in circumference, was blown out of the ground, after about 10 minutes' work, at a total cost of 2*s*. The effect was then shown on growing red gum trees, ranging from 45 ft. to 63 ft. in height and from 4 ft. 6 in. to 7 ft. 6 in. in circumference. It was surprising how quickly, simply, and cheaply these trees were taken out. The preparations for the largest of these gums took only 10 minutes, and at a cost of 3*s*. the job was done. The smaller trees took about the same time for preparation, but the cost in each case was lessened by 6*d*. to 9*d*. per tree.

For ditching, dam-sinking, and general excavation work, explosives must in the near future be very greatly used. The holes for the ditching experiment were prepared by novices, but were not properly placed. The proper position is zigzag fashion the holes to be 2 ft. apart in a straight

line. A plug of gelignite was inserted in each hole and fired. The explosions caused the ground to fly, and, as a result, all along the line of fire it was broken up to a depth of 3 ft. or more, making the removal of the loosened earth a matter of simplicity.

For subsoiling proper, a new powder of Australian manufacture was used. This was fired by means of a primer in the shape of a third of a plug of gelignite with the detonator. The holes were bored 2 ft. deep and 10 ft. apart, and the charge inserted and fired. Little result was apparent on the surface (except in the case of one hole, where a double charge was placed for experiment); but below, the ground was broken in all directions, the cracks extending from one hole to the other. At the actual spot of the explosion a spade could be driven down to the handle. For those who contemplate planting trees of any kind roses or shrubs, preparation of this nature is advised for three reasons-viz., time saved, money saved, and the roots of trees or shrubs get no check in their growth.

Again in the May issue of the "Agricultural Gazette" of New South Wales, at the conclusion of a Paper on "Subsoiling by Explosives," by H. C. Coggins, we find the following remarks and advice on the method:—

When one is asked to consider any new proposition appertaining to farming, the first thought is:—What is it going to cost? This most important item I shall deal with later, except for saying here that I have carried out a number of demonstrations in subsoiling with explosives in different parts of the State, and on different soils, and I find that subsoiling with explosives is by far the cheapest and best. One man can do the whole of the work; no horse and plough are required, only a few tools, consisting of one 2-inch bull-nosed auger, one tamping rod, and one pointed crowbar.

The explosive I use, and would recommend, is gelignite or blasting gelignite; it is handy, less dangerous, and not expensive.

In deciding to subsoil a paddock, the strength of the ground must first be ascertained, and a test hole is put down, about 2 ft., to get this. One must not expect to see an upheaval; this is far from what is required. If the earth is displaced to any extent, it shows that the charge is too strong and is liable to bring the subsoil to the surface; this must be avoided. As a general rule, I test with one plug, and, usually, I find this sufficient for good work. Of course, some soils required only half a plug; it all depends on the nature and strength of the subsoil and hard-pan.

After getting the strength of the ground, go ahead; bore the holes early 10, 15 or 20 ft. apart, according to the strength of the subsoil, and about 2 ft. or 3 ft. deep.

Preparing the Charges.

In preparing the charges it is necessary to use ordinary care and common sense; otherwise they may hurt. In cutting the fuse, cut square across the face, not slanting and allow about 4 in. to project above the ground; insert the fuse into the detonator, making quite certain that no sawdust packing remains in the cap. Be careful not to push the fuse well home. Leave a space between the conical-shaped cap, which contains fulminate of mercury, and the end of the fuse. Crimp the detonator on to the fuse at the end of the cap, and use the proper crimper for this purpose. Do not bite it on; it might bite you.

Gelignite is in a soft condition like soap. Bore a hole in it with the handle of the crimper, specially designed for the purpose; insert the detonator and tie the end, paper and all. This keeps the cap from slipping out. Lower the charge into the hole; tamp gently at first, but more strongly as the surface is reached, making the hole compact and tight, which is very important to get a good result. Then cut the fuse in a slanting direction and insert a small piece of gelignite. This will save matches and temper, if there should be any wind about.

As the fuse burns at the rate of 30 in. a minute, there is plenty of time to stand back. If one man is doing the job, it is advisable not to charge and fire more than 25 shots at a time; otherwise he may lose sight of a possible misfire.

Effect of the Explosion.

There will not be a big report, as some expect; neither will there be a displacement, to any extent, of the top soil. Where a number of holes are fired together, the effect for a fraction of a second resembles porridge on the boil.

The vibration of the shot will be felt from 10 to 15 ft. away, and this is practically the distance shattering of the subsoil extends. If one could take a section of the ground, the fractures could be easily seen.

The Cost.

The following table will give some idea of the cost of subsoiling with explosives. I do not include labour, as this will depend on the rate paid and also on the strength of the ground. Where conditions are easy, a hole a minute should be done; but where the hard-pan is tough and the sub-soil very compact, it may take 5 minutes. Preparing the charges and tamping the holes will take nearly 4 minutes per hole.

Dont's.

There are several "Dont's" to be observed, and it may be well to note a few:—

1. Don't smoke on the job.
2. Don't tamp with a metal tamper; use a wooden one—a broom-handle is excellent.
3. Don't tamp hard at first.
4. Don't, in the event of a misfire, untamp the hole, but put down another hole about 1 ft. away.
5. Don't forget that you are using explosives, and get careless after firing a few shots.
6. Don't clinch the cap on to the fuse with the teeth.

I would advise intending subsoilers, if they have not had previous experience, to attend one of the demonstrations that are given from time to time by the department, under the auspices of the various branches of the Agricultural Bureau, for, although the method is not difficult, ocular demonstration is always better than printed instructions.

Dry weather is the best time. Results are better then. When the soil is wet, the subsoil is liable to pug, and, instead of shattering downwards and outwards, the explosive is liable to have an upward effect.

ADVANTAGES OF SUBSOILING.

Some of the great advantages of subsoiling land are:—

1. Conservation of the rainfall in the subsoil.
2. The drainage will be far more satisfactory.
3. It is possible to get on the land quicker after rain.
4. Air and atmospheric heat can get to the subsoil and sweeten it up.
5. Roots of all crops are encouraged to go down, instead of spreading unnecessarily near the surface.

TABLE SHOWING COST OF SUBSOILING WITH EXPLOSIVES.

Distance of holes apart.	Charge	Number of Holes per acre.	Number of Lb. per acre.	Number of Feet of Fuse per acre in 3 ft. holes.	Number of Detonators per acre.	Total cost per acre.
Feet.	Plug.					£. s. d.
10	½	435	21¾	1,305	435	2 12 9
10	1	435	43½	1,305	435	3 14 6
12	½	302	15	906	302	1 16 6
12	1	302	30	906	302	2 11 6
15	½	194	10	582	194	1 3 10
15	1	194	20	582	194	1 13 11
18	½	128	6½	384	128	0 15 4
18	1	128	12½	384	128	1 0 7
20	½	109	5	327	109	0 12 9
20	1	109	10½	327	109	0 18 0

Manuring Para Rubber.

For several years past certain plots of Hevea at the Experiment Station at Gangaroowa have been manured with definite mixtures—that is to say mixtures containing an excess of nitrogen potash, etc., and now that the trees have arrived at a tappable age they will be tapped shortly, one system being followed in order to determine whether manuring influences the yield of latex. That is, of course, apart from any extra growth of the tree. It might be taken as a general rule that the bigger the tree the more rubber one can take out of it. It is not universally true, but it may be taken as a general principle. The idea of these manuring experiments is to find out whether any given manure will produce an increased flow of latex, independent of the size of the tree, without, necessarily, showing a better growth.—*Commerce.*

RUBBER.

Rubber Planting in the British Empire.

At the Northern Polytechnic, London, N., on Thursday evening, September 25th, a lecture was given by Mr. Cyril Baxendale on the "History of Rubber Plantations in the British Empire." Mr. Noel Trotter, Chairman of the Rubber Growers' Association, presided. Mr. N. Trotter is also Chairman of the Special Advisory Committee of the School of Rubber, which has been established at this Polytechnic, Mr. Fredk. Kaye, A. R. C. S., being the lecturer.

Mr. Baxendale, in the course of his lecture, said: I was planting rubber several years before the first ton of plantation was shipped to Europe, and, perhaps, now I realise even more clearly than a few years ago, how far from finality our knowledge is, not only as regards the habits and needs of the tree itself, but the treatment of its produce. Without any desire to boast about our little triumphs in the field, I am inclined to think that our knowledge of the agricultural side, deficient as it is, has advanced more rapidly than has the knowledge of its subsequent treatment. If any evidence of this is needed, you have only to take the market quotation to see that the clean, cultivated produce sells at from 30 per cent. to 40 per cent. less than the produce of the same tree grown in its wild state, although the latter suffers 20 per cent. loss on washing. Thus we find that pound for pound cultivated rubber sells at less than half the price of fine hard from Brazil, in spite of the fact that distinguished chemists, who have subjected both kinds to exhaustive experiment, have still found that, on the whole, the laboratory tests are distinctly in favour of plantation smoked sheet. In the meanwhile the value of research work is immense, and it is difficult to imagine any industry where the commercial possibilities are so attractive as those that await the keen student of this subject. A great deal has been done on both sides of the Atlantic, but during my visit to America last autumn, I formed the opinion that the American manufacturer, thanks largely to the keenness and ability of his laboratory chemist, is advancing more rapidly in the knowledge of plantation rubber, and has put that knowledge to more general uses than our friends over here. I trust I am mistaken, but if the reproach is justified, the formation of this Rubber School will help to remove it.

The first successful attempt to introduce *Hevea Brasiliensis* into British territory was made by Mr. W. A. Wickham in 1876. This, the most important and useful piece of smuggling ever recorded, was inspired by the late Lord Salisbury, and its value seems to have been appreciated by Sir Joseph Hooker and his staff at Kew Gardens, for we are told that they took delivery of the cases in the middle of the night, and no one returned to bed until those 70,000 seeds had been safely planted. Sir Joseph's efforts were rewarded by 2,800 germinations, and in the same year the plants were shipped to the Peradeniya Gardens of Ceylon, as a depôt for the plants, from which the cultivation was ultimately spread all over the British Colonies wherein the plants could thrive, and to some wherein it could not. In 1867 a case of 22 plants reached Singapore, and were successfully planted by Mr. Murton, then curator of the newly-founded Botanic Gardens there. The same year the first Hevea trees arrived in the Malay States. Two cases were sent to the late Sir Hugh Low (British Resident of Perak) and I am glad to say he lived long enough to see something of the success of the industry that he helped to found. Seeing that civilisation has become dependent on cultivated produce, it may seem strange

that the profitable cultivation of rubber should have been for years open to doubt. The only explanation I can offer for this is that the duty of tapping Hevea was relegated to Sakeis (Malayan aboriginals), who hacked them with choppers in the same old way that they collected Rambong (*Ficus elastica*) and other wild rubber, while the results they achieved were insufficient to tempt any capitalist to risk a penny in the business. It is to our scientist friends that we owe the primary knowledge of how these trees might be made profitable. Nothing was achieved prior to Mr. Ridley's appointment as Director of Botanic Gardens at Singapore in 1888, and it was not until 1891 that the first sample of plantation rubber was sent to London from Malaya, and was favourably reported upon by experts. During the nineties, several gentlemen in Ceylon, and Mr. Derry and Mr. Leonard Wray in Malaya, continued the experiments. The first actual sale of plantation rubber recorded was in 1890, at 3s. 10d. per lb. This was from trees grown from Wickham's seed, then 22 years old. There were a few of these trees privately owned, scattered about as interesting botanical specimens on various estates in Ceylon and Malaya, but the first planting on a commercial scale dates from 1895—only 18 years ago. Rumours of remarkable results from the first-planted trees of Ceylon and Malaya reached Europe, and, in consequence, as the years rolled on it became increasingly easier to raise money for rubber plantation, right up to the boom of 1910, when, after a wild, mad, and never to be sufficiently deplored season, the pendulum started to swing the other way, and has kept on doing so.

The extension of the area under Hevea in Malaya, which in 1905 amounted to about 38,000 acres, increased at an average rate from that year of about 70,000 acres per annum. The total area under Hevea in British Malaya, *i.e.*, Straits and F. M. S., now amounts to 600,000 acres. The progress in Ceylon, where the tea industry was more prosperous than the coffee and sugar plantations on which the British planters of Malaya mostly depended, has naturally been less rapid. Nevertheless, there is a considerable area under rubber in the island, while the plantations in the Travancore district of India, Burmah, Northern Australia, New Guinea, Africa, the West Indies, the South Sea Islands, Java, Sumatra, Hawaii, etc., brings the total to upwards of 1,000,000 acres. The recent decline in the price of rubber has curtailed extensive programmes, and we may also assume that, if the value of plantation rubber falls to anything below 2s. a pound, the production will be curtailed, although the older estates in favoured localities may be able to produce with a moderate profit at 1s. 6d. a pound, and some at even a lower figure.—*The India Rubber Journal.*

Malay Rubber Exports.

The figures of the exports of plantation rubber from the Federated Malay States for the month of September, just cabled over, show an increase on those for the corresponding month of last year of 1,511,300 lbs. The month's total was 4,480,000 lbs. which brings the aggregate for the nine months from 1st January up to 37,254,700 lbs. as compared with 24,701,800 lbs. for the corresponding period 1910 and 13,260,300 lbs. in 1911. The figures do not include the output of Ceylon, Java and other plantation rubber producing countries, but they indicate the rapid growth and importance of the industry and form an argument for the desirability of the establishment of a comprehensive plan for marketing the commodity, such as the Central Selling Agency which has been advocated.—*Commerce.*

TEA.

The total quantity of tea exported in 1912 was 197,559,863 lbs., valued at £5,154,588., against 195,040,400 lbs., valued at £5,161,300 (in 1911. A decrease of over 11,000,000 lbs. in black tea was counterbalanced by an increase of 12,000,000 lbs. in green and brick tea. The decrease in black tea is chiefly due to the serious decline of direct exports to the United Kingdom, Hong-Kong, and the United States, caused by the large supplies from India, Java and Ceylon. The export of black tea from Java is already over 70 per cent. of the export from China, and is steadily increasing. Owing to the relaxation of the Pure Food Act, the export of green tea to the United States was more than doubled. The Mediterranean ports show the growing popularity of tea on the Continent. There was a decline of shipments to the European Ports of Russia, which may be attributed to the congestion of the Batoum market caused by the excessive imports of 1911. Although the figures for 1912 compare not unfavourably with those for the previous year, there is a general feeling that the China tea trade is on the wane. Various causes are assigned to the falling-off. There is a tendency amongst cultivators to aim at quantity rather than quality, and much reckless competition is indulged in by the middle-men for the raw leaf, resulting in unduly inflated prices.

In spite of predictions to the contrary there was a very large crop of both black and green teas in the Hankow and Kiukiang districts at the beginning of the year, though most teas were interfered with by the spring drought. Far more tea was produced, however, than was wanted, with the result that the markets in many parts of the world were rapidly overstocked. Chinese teas have failed to maintain their popularity in the United Kingdom, and Russia is taking more and more to the Indian Teas. —(*Diplomatic and Consular Reports.*

The Coffee Crop.

An estimate of the Brazilian coffee crop sent from Rio de Janeiro by cable to our Paris contemporary, "L' Information," and based upon the statistics forwarded to the Ministry of Agriculture by the Governments of Sao Paulo, Rio de Janeiro, Bahia, Victoria, Mines and other States, gives the figure of the 1914-15 crop, which will be exported from 1st July next, at 12,300,000 bags of 60 kilos each. This is a small crop, and, supposing the estimate made for other producing countries be accurate, the Brazillan output would be about three-fourths of that of the entire world, which is stated at 16,300,000 bags. The world's consumption for 1912-13 was 17,000,000 bags and the annual increase should bring this up to about 17,300,000 bags, or about 1,000,000 bags more than the output, which would mean a diminution of the same amount in the visible stocks. The report naturally gives great satisfaction to the Brazilian producers, who had been apprehensive as to the output in Java.—*Commerce.*

From all accounts it is evident that there is a deal of cut-throat competition going on in Southern India in connection with the recruiting of Tamil labourers of the agricultural classes for service in Ceylon, Malaya, Burma, etc. Naturally, therefore, high rates are being offered, and inducements by false representations held out in some cases. The Tamil coolies have now come to learn their value and probably more and more difficulty will be experienced by recruiters in the future. The Labour Question appears well nigh insoluble. It is the burning question of the day, yet the solution of the problem gets no forwarder.—*Indian Planters' Gazette and Sporting News.*

CORRESPONDENCE.

Tea.

THE EDITOR,
The Planters' Chronicle,
Bangalore.

Dear Sir,—I should be glad to hear if Tea Planters in general find an almost constant "loss" in weight in London returns. For years past I have found it so, and, though every care is taken in packing the loss still continues. Sometimes the *monotony* is varied by a shipment weighing out correctly; and, *very occasionally*, a small gain is noted, but the loss outweighs all else.

In packing, 4 oz. tea are always allowed over the weight marked, and the chests are kept 4 oz. under the half pound, so that the gross weight on despatching, runs to the half pound. This method was recommended some time ago by a London expert, but the losses continued.

Doubtless the moisture absorbed by the chests makes a difference in weight, but since the chest is weighed in both "Gross" and "Tare," there should be no loss in weight of tea.

I may mention that Imperial, Cotton-wood and Venesta chests have all been used at different times.

If any one can suggest an improvement in packing methods, it would greatly oblige

Yours faithfully,
"ONE INTERESTED."

November 5th, 1913.

Mercara, 5th November, 1913.

Non Service of Warrants.

The EDITOR,
The Planters' Chronicle.
Bangalore.

Dear Sir,—At the recent meeting of the Coorg Planters' Association in the report read by one of the Delegates to the U. P. A. S. I. there was under heading "Non Service of Warrants" a remark made regarding non-extradition from Travancore giving the reason for the reluctance of the Madras Government to enforce extradition rights on the Native State of Travancore that it was "a tender point with them." (and with the Travancore Government also I presume)!

This is all very well, but I would like to point out that *there was no* such anxious reluctance on the part of the British Government when dealing with the Native State of Mysore on the matter of extradition and for the life of me, I cannot see why the Native State of Travancore *should* alone, be allowed the privilege (if privilege it be) of giving sanctuary to cheats and misappropriators of other people's money

My maistry gets an advance *from me to collect* coolies for my estate. He collects coolies, but learning that by walking across the border into Travancore he can, not only misappropriate my money with impunity, but is welcomed with open arms and *more money* is pressed on him, and he has the impudence—knowing himself safe—to write and tell me where he is, what he is doing with my money! and even asks for more!!

The British Government does not like to hurt the feelings of the Travancore Government by insisting on the apprehension—under a warrant of a British Magistrate—and punishment of a man like this, while the Travancore

Government (by inference) takes it as a privilege being allowed to give this impudent fellow sanctuary.

The Hon'ble Mr. Barber please take note of this.

I am,
Yours faithfully,
G. K. MARTIN.

The Labour Commission.

THE EDITOR,
The Planters' Chronicle,
Bangalore.

Dear Sir,—I wonder how many Associations will be in favour of having a Labour Commission run on the lines given in Mr. Nicolls' letter on the 21st ultimo, which informs us that the Labour Commission will do "No direct recruiting" but will only advise planters "as to the prospects of recruiting in the various districts," which means that maistries will recruit as hitherto and competition will continue.

Is this the sort of "combination" which has been advocated as one of the advantages of having a Labour Commission? I was always under the impression that the first aim and object of the Ceylon Commission was to recruit coolies and that they do so "direct," and that the South Indian Labour Commission was to "have the experience of the Ceylon Labour Commission as a guide" but it seems that this "experience" in this line is not to be followed—and only in the matter of registering, feeding, and medically examining coolies, etc. It appears that maistries are to recruit as hitherto, and then take their coolies well out of their way to their estates to one of the Labour Commission Depots to have them registered, fed and protected. What an advantage over the present system!

It strikes me that the native staff would have to be considerably larger than is estimated, if it is going not only to supervise all "the maistries sent to recruit" but also to "furnish reports to the estates from which they have come." It is not as if this work could be spread over the whole year or even half of it.

It seems Mr. C. E. Murray-Aynsley was under the impression that the Labour Commission intended to recruit "direct" when he pointed out that estates which had their labour established would be paying for those which still required labour.

After carefully considering all the "advantages," so far offered by the Labour Commission, the following seem to be the only three which may be profitable or of use *vis*:—

(1) being able to have enquiries made as to the status of maistries; but as this would probably be done by natives with no particular facilities to help them, no training, no check and not over much intelligence, it is questionable if the information would be very reliable.

(2) the distribution of pamphlets; though I doubt if this would do much good unless the distributor was prepared to make advances on the spot and take the recruits away with him.

(3) the investigation of new recruiting areas.

Is this worth paying at least a rupee an acre for?

The main question is the supply of labour as pointed out originally by the Labour Committee *vis.*, the limiting of the advances of our competitors, seems to now be ignored.

Yours faithfully,
N. I. K.